

BROADBAND EXPANSION GRANT APPLICATION

For Fiscal Year 2022

Primary Applicant (Name and Address):	<p>Applications MUST be UPLOADED to ERF via the Commission's website, http://psc.wi.gov/apps35/ERF_upload/content/mymenu.aspx. Refer to section 2.3 for detailed instructions.</p> <p>Applications are due and MUST be uploaded to ERF no later than: March 17, 2022 at 4:00pm (16:00) Central Time. Late applications will not be accepted.</p>		
	Contact for further information: PSCStatebroadbandoffice@wisconsin.gov		
	Date: December 1, 2021		
<p>The Public Service Commission of Wisconsin is seeking applications for Broadband Expansion Grants. The Commission may award one or more grants during Fiscal Year 2022 to public and private entities that meet the eligibility requirements set forth in Wis. Stat. § 196.504. This grant round will be funded with bond proceeds authorized by the Wisconsin Building Commission pursuant to Wis. Stat. § 13.48(30). As such, successful applicants are subject to the requirements of Wis. Stat. § 13.48(30). Successful applicants will demonstrate a clear and achievable plan to improve broadband communications services in one or more underserved areas in the State.</p>			
<p>Applicant Certification: In signing this application, the undersigned verifies under penalty of perjury that the Applicant and its employees and agents have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition with respect to this application; that no attempt has been made to induce any other person or firm to submit or not to submit an application; that this application has been independently arrived at without collusion with any other proposer, competitor or potential competitor; that this application has not been knowingly disclosed prior to the opening of applications to any other applicant or competitor; that all of the responses and representations of Applicant in this application are true and correct to the best of the undersigned's knowledge, information, and belief; and that Applicant agrees to, accepts, and will comply with all of the terms and conditions respecting this application and any award of a broadband expansion grant as may be established in a grant award Agreement.</p>			
Name of Authorized Representative (Type or Print) Nathaniel B. Lyon	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> Title President </td> <td style="width: 50%; border: none;"> Phone (612) 991-4260 Ext. 6 </td> </tr> </table>	Title President	Phone (612) 991-4260 Ext. 6
Title President	Phone (612) 991-4260 Ext. 6		
Signature of Authorized Representative 	Date 3-15-22		

SUMMARY OF GRANT APPLICATION

Primary Applicant Name NorthfieldWiFi LLC	Amount of Broadband Grant Request (round to nearest dollar) \$503,150
Federal Employer Identification No. 51-0630418	Amount of Matching Funds Pledged (round to nearest dollar) \$149,777
Contact Name and Title Nate Lyon - President	Total Cost of Proposed Project (round to nearest dollar) \$652,928
Telephone Number (507) 403-9767	Project Name Pierce County and St. Croix County Fixed Wireless Broadband Expansion Project
E-mail Address(es) nate.lyon@nfldwifi.net tabitha.lyon@nfldwifi.net	Type of Proposed Broadband Service (FTTH, Cable, DSL, etc.) Fixed Wireless
Grant Manager, if different than Primary Applicant	Type of Proposed Project (Last-mile, Middle-Mile, backbone, other) Last-Mile and Backbone
Grant Manager Contact Name Nate Lyon	Grant Manager Email Address and Telephone Number Nate.lyon@nfldwifi.net 1403 Heritage Drive, Suite A Northfield, MN 55057 (612) 991-4260 Ext. 6
If the application proposes a public-private partnership, list the names, addresses, and FEINs of the partner companies or organizations	
<p>Brief Project Description (2 sentences)</p> <p>This project will build 9 new wireless broadband towers and upgrade 6 wireless backhauls in Pierce and St. Croix Counties. The 9 new towers will be using the latest OFDMA AX technology to bring a minimum of 150Mbps which will have the potential to reach 6,136 residential locations and 725 business locations.</p>	
Maximum Proposed Download Transmission Speed 1.6Gbps	Maximum Proposed Upload Transmission Speed 1.6Gbps
Minimum Proposed Download Speed to Customer Location 150Mbps	Minimum Proposed Upload Transmission Speed to Customer Location 150Mbps
County or Counties served by this project Pierce County, St. Croix County and Dunn County	Community or Communities served by this project River Falls, Trimble, Morton Corner, Martell, Spring Valley, Viking, Centerville, Wildewood, Elmwood, Rush Creek

List of the broadband service providers, if any, currently serving the area the applicant proposes to serve Century Link/Lumen, ATT, Frontier	
Does proposed project serve an <u>unserved</u> area of the State, as defined in <u>Section 1.4</u> of the application instruction? (yes/no) Yes	Is the Applicant certified as a Broadband Forward! Community or Telecommuter Forward! Community, or does the grant project propose to serve a Broadband Forward! Community or Telecommuter Forward! Community? (yes/no) Yes
For last mile projects or component the expected number of Business Locations that will have access to the improved broadband service (i.e., total business locations passed or with new service access). 725	For last mile projects or components the expected number of Residential Locations that will have access to the improved broadband service (i.e., total residential locations passed or with new service access). 6,136
Of the improved business locations, how many locations are <i>unserved</i> ? 125	Of the improved residential locations, how many are <i>unserved</i> ? 1625
For providers that are eligible telecommunications carriers will the proposed broadband service be available to Lifeline customers? (yes/no) Yes	Are there any programs available for low-income households to access low-cost service or discounts? (yes/no) Yes
Is the internet service provider currently participating in the Emergency Broadband Benefit Program? (yes/no) Yes	Is the internet service provider currently participating in the Department of Public Instruction and CESA purchasing's Digital Learning Bridge? (yes/no) Yes
Did the internet service provider participate in the Public Service Commission's voluntary Broadband Coverage Data Collection in 2021? (yes/no) No	

FY22 Broadband Expansion Grant Application

Budget & Income Summary

Please complete this form using Microsoft Excel. A PDF copy must be attached to your application as page four. In addition, this form must also be uploaded to ERF in Excel format.

Grant Summary















Grant Applicant:	Project:
NorthfieldWiFi LLC	Broadband Expansion Grant Application for Fiscal Year 2022

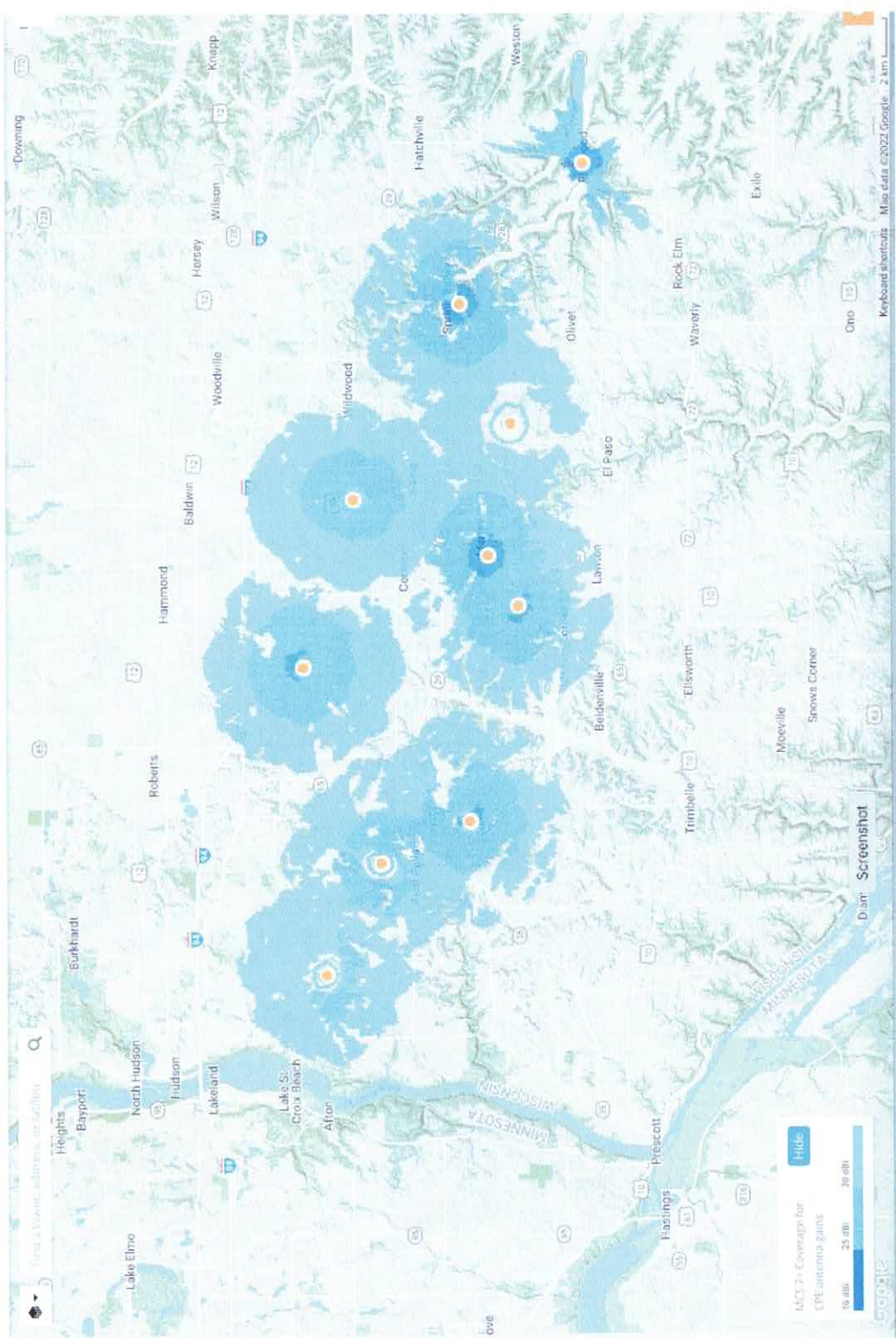
Budget

Line:	Description / Category:	Grant Funds:	Match:	Total:
1	Contractual, Consultant Fees	\$ 20,823.00	\$ -	\$ 20,823.00
2	Equipment	\$ 358,000.00		\$ 358,000.00
3	Supplies	\$ 4,924.61	\$ 4,924.61	\$ 9,849.22
4	Labor (Salary, Fringe)	\$ 86,852.78	\$ 134,852.78	\$ 221,705.56
5	Permitting, Licensing Fees	\$ 28,800.00		\$ 28,800.00
6	Travel	\$ 3,750.00	\$ 10,000.00	\$ 13,750.00
7	Other			\$ -
Total:		\$ 503,150.39	\$ 149,777.39	\$ 652,927.78
22.9% match requested				

Pledged Contributions

#:	Entity:	Entity Type:	Pledge Type:	Pledge:
1	NorthfieldWiFi	Applicant	Salary	\$ 134,852.78
2	NorthfieldWiFi	Applicant	Cash	\$ 14,924.61
3				
4				
5				
6				
7				
8				
9				
10				
Total:				\$ 149,777.39

- Western WI Expansi...    
- > 44.78157199022223, -92.149698...  Add AP
- > 44.81214040984943, -92.443943...  Add AP
- > 44.81564223153787, -92.321840...  Add AP
- > 44.82629855860815, -92.409976...  Add AP
- > 44.834988, -92.587141  Add AP
- > 44.839326, -92.242785  Add AP
- > 44.87671466065703, -92.614477...  Add AP
- > 44.889420, -92.372680  Add AP
- > 44.90278732365587, -92.689890...  Add AP
- > 44.913360504342954, -92.48437...  Add AP



NorthfieldWiFi was founded in 2006 in Northfield, MN. The owner, Nate Lyon was unhappy with the current providers and thought that he could do better – that is how NorthfieldWiFi came about – a desire to provide better. To this day, it is an easy sell when sharing NorthfieldWiFi with others, because we can easily stand behind our service - it truly is the best out there. The dedication, knowledge and experience of our team is unbeatable. Our customers will attest to this fact as well. As a matter of fact, referrals are our #1 one way that new customers hear about NorthfieldWiFi.

3.2.2 Description of the Project

a. Map attached

b. Current Providers in Census Block Data Areas and service plans offered:

ATT Wireline – 6Mbps download/1Mbps upload

CenturyLink/Lumen – 15Mbps download/0.75Kbps upload

Baldwin Telecom – 8Mbps download/1Mbps upload

T-Mobile – 25Mbps download/3Mbps upload

c.

- NorthfieldWiFi anticipates serving 6,136 residential customers to include both unserved and underserved.
- 725 business customers to include both unserved and underserved
- Regarding seasonal residents, NorthfieldWiFi has created city-wide/event wide WIFI networks for cities/events. This would allow for those cities to provide access to a city-wide network through a payment portal to tourists and seasonal residents in public locations, thus generating more seasonal income. An example would be the Pierce County Fairgrounds. We have also provided custom project quotes for campgrounds in need of internet for seasonal campers and the campground (Cannon Falls Campground).
- NorthfieldWiFi also offers a snowbird suspension for those who are retired and live elsewhere during the winter months. Saving them money while not using their connection.
- NorthfieldWiFi can provide Gigabit download and upload speeds.

Current Service Plan offerings (custom plans upon request):

8.0Mbps download/3Mbps upload

15Mbps download/4Mbps upload

30Mbps download/6Mbps upload

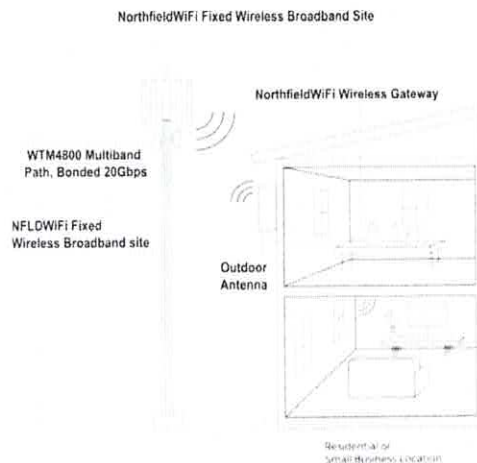
50Mbps download/8Mbps upload

75Mbps download/15Mbps upload

100Mbps download/20Mbps upload

d. This proposed project encompasses the backbone and middle mile portion of our broadband infrastructure.

e. NorthfieldWiFi provides an over the air fiber broadband service. At our core, we have a redundant fiber backbone. We then transmit from the tower location to the customer home/business via wireless microwave radio transmissions. The service to each home/business is transmitted from a dedicated link and the service to the customer is never oversubscribed.



f. N/A – NorthfieldWiFi is an end-to-end provider. We manage and maintain our network throughout.

g. NorthfieldWiFi predicts that we can complete 1 tower build every two months, allowing a timeline of 18 months to complete the project. The 24-month allotment will be beneficial if there are any obstacles, but based on past projects, we think that an 18–24-month timeline is feasible to complete the project in its entirety.

3.2.3 Itemized Budget

a. See budget spreadsheet and included attachments for equipment pricing. Facilities used for tower builds will be leased and a contract between NorthfieldWiFi and Lessor will be signed prior to completing the specific tower build.

b. NorthfieldWiFi will not use the grant funds towards monthly bills generated as a result of the project. The funds will strictly be used for the project as stated in the budget spreadsheet.

c. See budget spreadsheet and included attachments for further breakdown.

3.2.4 Priority Factors Supporting the Application

a. Matching funds: NorthfieldWiFi is requesting salary for one of the three technicians that will be involved in the process for building out this project (86,852.78) We expect this to be

completed within an 18–24-month period if funded as requested. Northfield will also request 37% of travel funds (\$3750) as we will pay the remaining. In the supply column, we will supply 50% of the cost of the supplies for the project totaling, \$4,924.61.

b. Public-private partnerships: NorthfieldWiFi is not seeking partnership with any other entity or individual for this project. Upon completion of a project, we do however partner with the local Chamber of Commerce to advertise our business to the community.

c. Existing broadband service:

ATT Wireline – 6Mbps download/1Mbps upload

CenturyLink/Lumen – 15Mbps download/0.75Kbps upload

Baldwin Telecom – 8Mbps download/1Mbps upload

T-Mobile – 25Mbps download/3Mbps upload

- Based on the above existing providers, NorthfieldWiFi will not be duplicating the existing broadband infrastructure.
- We are not over lapping service as NorthfieldWiFi will be able to provide faster speeds to the residential and business customers as well as a different technology as we are an over the air fiber provider.
- None of the listed landline, DSL, cable or fiber to the home (CenturyLink/lumen, ATT wireline) providers above overlap the service NorthfieldWiFi provides. It is unknown who is served currently by the above listed landline and wireline providers.
- None of the listed mobile wireless (T-Mobile) providers overlap the service NorthfieldWiFi provides. It is unknown who is currently served by the above mobile wireless providers.

d. Project Impact: NorthfieldWiFi's project will encompass the communities of rural River Falls, Trimble, Morton Corner, Martell, Spring Valley, Viking, Centerville, Wildwood, Elmwood and Rush Creek in both St. Croix County and Pierce County Wisconsin.

NorthfieldWiFi anticipates serving 6,136 residential and 725 business customers.

NorthfieldWiFi will be able to provide a minimum of 150Mbps download and 150Mbps upload to each business and residential customer. Our service offerings/packages are customizable based on customer need.

Regarding low-income access, NorthfieldWiFi has partnered with local school districts to provide free service to families that cannot afford service. (Healthy Community Initiative in Northfield, MN). We pride ourselves on partnering with local communities and helping where we can. We are currently partnering with the Northfield Community Action Center and the Hillcrest Village Project. NorthfieldWiFi is donating the equipment, service and time needed to install and provide highspeed broadband to the residents of this housing project to ensure that we can assist in the transition of families back into the community.

e. Scalability: NorthfieldWiFi plans on adding 9 more tower locations in Pierce and St. Croix County with the added network growth.

- The projected number of new users: 6,136 residential and 725 business
- 9 additional towers
- 6 broadband service packages available (custom upon request)
- See map provided for geographic area covered by project

In conjunction with the 9 towers, we propose to add, we will upgrade 7 core backhubs in order to maintain the quality of our service to customers in Wisconsin. This project will allow NorthfieldWiFi to continue to expand further into Wisconsin and serve more unserved and underserved areas and bring better service options to those with inadequate service today.

f. Economic Development: The areas in which we are looking to expand (see map) are areas that have no options or limited options for highspeed broadband service. We understand that some towns may have local providers, but when researching some of these options, not all are created equal.

NorthfieldWiFi has been in business for 16 years and has the expertise to provide what local businesses and residents need to propel forward – we have helped K-12 and college students alike, continue their education when school's shutdown, provided free service to families in need, partnered with local schools to assist families to stay connected, provided what the consumer needs to stay connected while working from home and ensured that they received what they are paying for every day (no shared bandwidth, only true speeds).

While some companies are dabbling in providing internet service, we show up with the ability to provide 150Mbps+ from the beginning. Our speeds are true speeds and not "up to" speeds. Many other companies advertise "up to" speeds and can rarely provide those speeds. This is how NorthfieldWiFi stands apart from other providers and we not only expand our network to serve more people and communities in need but upgrade our network as we go so the consumer is always receiving their promised speeds.

NorthfieldWiFi will create a positive economic impact in all areas in which we expand. Please see the letters and audio file submitted to speak on this in other communities we have expanded in. This proves how our service, even when other options are available, has improved broadband service to the residential customer and businesses in these areas and supports the idea that we will also do this in communities that we expand our service into. We take pride in being the best option available.

Another important part of our business is that we have a redundant fiber backbone. We have the full internet routing table on each of our edge BGP routers, simply put, if one route goes down, traffic seamlessly reroutes, and the customer will not notice the change. This greatly improves reliability and uptime of our Network.

- An example how this could impact a business is that allowing for someone to have an at home office vs. renting an office space, is a great savings for a small business which in turn will allow for the business to expand more quickly and create more jobs.
- An example of how improved download and upload speed can support business needs is as follows - a business will be able to host web meetings (zoom, teams etc.) with the customizable service plans that NorthfieldWiFi offers – a specific example, highlighted during the pandemic, is that online meeting platforms require additional upload to perform properly – we were able to offer custom upload speeds to our customers without adding a great cost by forcing customers to upgrade to the next listed service plan.
- How NorthfieldWiFi service impacts home sales is shared in one of our supporting letters. See excerpt below:

- *Assisted us in the process of selling our home. Having NorthfieldWiFi was one of the factors the buyers looked at when assessing feasibility of buying our home. We were able to get more of a fair market value because we had access to high-speed internet services of the caliber NorthfieldWiFi provides – Sherry Keller, current customer*

Location: Clifton Township, WI

- NorthfieldWiFi service has already greatly impacted the needs of those telecommuting. The pandemic has proven that our service is more than adequate to support those working from home. We spent much of our time in 2020, not only expanding, but upgrading our entire network to meet the demands of the additional bandwidth use. Instead of compromising the needs of our current customers by oversubscribing our towers, we spent the time and money ensuring ALL our customers had what they needed to support their in-home office needs. Both Sherry Keller (supporting letter) and Wendy Wustenberg (supporting letter) discuss this in their letters. See excerpt from Wendy Wustenbergs letter:
 - *The real benefits came with the global pandemic of March 2020. If our neighborhood of people weren't grateful before, all of us who switched to Northfield WiFi certainly were then. People could work from home and their kids could go to school. Our youngest daughter was relocated to the farm guest house unexpectedly mid-way through the second year at Vermont Law School. The pivot to digital education meant all-day, everyday streaming via Zoom and secured educational streaming services. Advanced Moot Court was conducted online as was the highly controlled access to Minnesota Bar prep summer 2021. The dependable streaming ability allowed Lauren to excel in her academics, in virtual student leadership activities in the evening, and in a legal fellowship with the United States Senate that was largely virtual from the farm. That evolved into a job, partly because she was able work very effectively and participate in online meetings when the entire Senate staff was working remotely. Bill's Mycroft Medical, LLC business was unaffected by internet impacts of at-home law school. We consider it a blessing that the Northfield WiFi upgrade allowed us to invest in a much bigger home office designed for teleconferencing in 2020 rather than commit to rental of*

expensive commercial space just for internet access. Our medical device practice flourished because the access to internet had become the norm for international work, and all our business systems had been upgraded to take full advantage of it. Life went on as before for us, professionally. We can measure the benefits in revenue and quality of life.

(also refer to voicemail uploaded from 12/23/2021, illustrating our broadband commitment to the communities we serve)

- NorthfieldWiFi's current speeds fits today's demand (150+Mbps) and can easily upgrade to meet future demands. We have already proven this by the fact that our owner and team of knowledgeable technicians researches the next best technology to use. We have invested the time and money in 2020 and 2021 to upgrade all our towers to offer speeds of 100+Mbps.

g. Effect upon broadband service to adjacent areas:

NorthfieldWiFi will not impair other service providers ability to provide service. We license our backhauls through the FCC as part of our expansion process. Other providers are made of aware of this and can comment if there will be any interference.

3.2.5 Other information supporting the application

a. In 2020, NorthfieldWiFi received funds from the CARES act to expand and upgrade our network in Rice County, MN. These funds supplemented current projects and upgrades necessary to support the extra capacity due to the onset of the pandemic and those distance learning and working from home. Projects that were supplemented include the addition of Aviat Equipment at one of our tower locations in Randolph, MN. This positively impacted every customer on our network ensuring that our customers were able to maintain speeds promised. We were able to partially fund 4 tower buildouts allowing us to expand coverage and upgrade equipment necessary to meet the increased demands of higher speeds and capacity. The cities included in the project:

Elko New Market, MN: 4,702 residents

Lonsdale, MN (rural areas): 4,447 residents

Waterford Township, MN: 500 residents

Nerstrand, MN (extended to rural areas): 294 residents

Faribault, MN (specifically Cannon City, MN): 1,212 residents

2020 Project Details:

Aviat Equipment Upgrade (Randolph, MN): Upgraded capacity from 1.4Gbps to 3.0Gbps across NorthfieldWiFi's network.

Elko New Market/Rural Lonsdale: Completed a tower build using Licensed Ubiquiti LTU equipment providing Gig speeds to its 4,702 residents and businesses.

Waterford Township: Completed a tower build using Licensed Ubiquiti LTU equipment providing Gig speeds to its 500 residents.

Nerstrand, MN: Expanded our network and completed an additional build using Licensed Ubiquiti LTU equipment to provide upgraded Gig speeds to its 294 residents.

Faribault, MN/Cannon City, MN: Completed a tower build on the Faribault water tower using Licensed Ubiquiti LTU equipment bringing Gig speeds to its 1,212 residents (Cannon City).

During this same time, NorthfieldWiFi also experienced a unique situation where a local farmer had equipment installed on his grain leg from another ISP. According to the farmer, this ISP was not providing quality service to him and the 8 neighbors it supplied internet to. He contacted us having heard about us from other people in his area to see if we could complete a build out on his grain leg to improve the service he was currently receiving. After our owner and technicians visited the site, it was determined that we could help him. The only stipulation we requested was that he first talk to the current service provider, so we did not interfere with their service. Within 2 days the equipment from the other provider was removed and in less than a week, NorthfieldWiFi was providing service to him and his 8 neighbors. Our team was dedicated to this project understanding that the need was great for these rural individuals who had no other option. This was amid the pandemic and time was of the essence so the residents could continue to work and learn from home.

b. Upon researching the areas in which NorthfieldWiFi is looking to expand, we do not find that we will be duplicating existing broadband infrastructure. Of the limited providers, none of them appear to compare to how we will build our network.

c. NorthfieldWiFi has been primarily self-funded in the 16 years it has been in business. What this grant will do is allow for us to expand our network faster as funds will be more readily available due to the assistance of the grant. Currently NorthfieldWiFi has 78 towers and apart from the supplemented projects in 2020, we have funded our own projects as we continue to grow and provide service to underserved communities in both Minnesota and Wisconsin.

f. Regarding the ability to access health care services, NorthfieldWiFi currently has customers that utilize telemedicine equipment with no difficulty. This will not be a problem for future customers.

- One example of this is a particular customer that used monitoring for her medical devices so that she could live out her end of life in the comforts of her home. Her medical team was able to monitor devices remotely and complete appointments via web video. Unfortunately, this customer has since passed on, but she was able to be in her home due to the reliable internet connection from NorthfieldWiFi.

g. Regarding the ability of students to access educational opportunities, NorthfieldWiFi supported many families during the pandemic where their students were required to distance learn. In fact, we have provided an audio message (provided supporting letter as well and excerpt above) from one of our tower owners and she clearly states how we directly impacted her daughter's college career and the need to complete her coursework from home due to the pandemic. There is no limit on how many and what a student/s can accomplish with the use of our network, to limit this to a list of opportunities is not possible as the opportunities are endless.

h. Upon initial expansion of NorthfieldWiFi's network into Wisconsin (2018), we met with board members in Pierce County and included in our discussion of expansion, was the ability to use 6 county towers to aide in our continued growth. Creating these relationships will speed up the process of expanding our network.

i. Letters of support are attached.

j. NorthfieldWiFi provides a complete installation folder for each customer. This folder includes information to assist with troubleshooting service issues, how to set up the billing account, our history and mission statement, and how to contact us. Pictures of the equipment (roof top gear, router etc.) are also provided to aide in the troubleshooting process. We also have an easy to navigate website.



Pierce County Wisconsin

Office of Administration

414 W. Main St. PO Box 128

Ellsworth, WI 54011

(715)273-6851

www.co.pierce.wi.us

Administrative Coordinator

Jason Matthys

March 10, 2022

RE: Wisconsin Broadband Expansion Grant Program

Mr. Dennis Klaila

4822 Madison Yards Way

Madison, WI 53705

Dear Mr. Klaila,

I would like to take this opportunity to express my strong support for Northfield WiFi's application for rural Wisconsin broadband project. Northfield WiFi's expansion project will greatly help to address the lack of adequate broadband Internet access and connectivity in this rural area.

This expansion request, if approved, will dramatically improve broadband coverage to our underserved communities. It brings about lasting, future-proof infrastructure that meets the demands of today's households and businesses, and will likely spur needed job growth and telecommuting opportunities in and around Pierce County.

Additionally, I feel strongly that this project will enable greater collaboration and teamwork between community service centers, public safety offices, as well as county and municipal offices.

I respectfully ask for your support for Northfield WiFi's rural broadband project(s) in Pierce County, WI.

Sincerely,

Jason Matthys

Administrative Coordinator

March 14, 2022

RE: Wisconsin Broadband Expansion Grant Program

Dear Wisconsin Grant Board,

My name is Lisa Cernohous and I am a resident of rural River Falls, WI (between the towns of Trimble, Beldenville and Morton Corner). I am writing to express my support of NorthfieldWiFi's expansion into this area of Wisconsin.

As a telecommuter, it is imperative to have good quality, highspeed broadband to complete my job from home. Currently, we struggle with this as our current provider(s) do not adequately support our broadband needs. We have 3 different hotspot connections just to support our online needs. It is more than we have budgeted for internet but is a necessity.

The expansion, if approved, will not only benefit us, but our many neighbors who struggle as well and it will allow for future economic growth in our area, not to mention that it will add value to our property if we were ever to sell. Today, many would pass on living in such an area since most workplaces require access to highspeed broadband at home.

Please consider funding the grant funds for NorthfieldWiFi's rural broadband projects in St. Croix County and Pierce County, WI.

Sincerely,

(electronically sent)

Lisa Cernohous
Resident of Rural River Falls, WI

March 13, 2022

To Whom It May Concern:

I live in an area of Wisconsin (Clifton Township – Pierce County) where there are limited options for high-speed internet. In 2017 and 2018, a coalition was formed to identify options to get services to Clifton Township. At this time, we conducted a survey to determine the need and desire. The survey results indicated there was a significant need for high-speed internet to support education, health care and commerce – either home based business or working from home.

Northfield WiFi was one of the options identified as a solution that could help Clifton residents have the same opportunities as residents with more options for high-speed internet technology. Northfield WiFi was great at helping navigate what was needed to bring high-speed internet to residents of Clifton. Northfield WiFi provided fantastic support while working through identifying how to get the services established and has been fantastic in providing customer service.

Because of Northfield WiFi's support, today residents of Clifton Township can:

- More effectively help their children get an education without having to pack them up to go to a library or coffee shop to do their homework or attend virtual classes
- Run their businesses and/or work from home without having to spend hours commuting
- Manage their health better and use the online and virtual healthcare options

All these benefits became even more important and effective as we have gone through the last couple of years of navigating a pandemic and being more dependent on virtual activities.

For me personally Northfield WiFi has:

- Provided me the ability to work from home without any disruption in my day which is due to the level of service received from Northfield WiFi. I do hear this comment from many other residents as well.
- Assisted us in the process of selling our home. Having Northfield WiFi was one of the factors the buyers looked at when assessing feasibility of buying our home. We were able to get more of a fair market value because we had access to high-speed internet services of the caliber Northfield WiFi provides

It has been 4 years since getting an option for high-speed internet from Northfield WiFi. I hope Northfield WiFi can be the recipient of financial support, so they are able to provide this type of service and level of service to other residents in rural areas needing high speed internet.

Sincerely,

Sherry Keller

. Windswept Hill Farm .

20800 & 20828 Ahern Boulevard . Farmington . MN . 55024-8175 . windswepthillfarm@gmail.com

March 11, 2022

To Whom It May Concern,

We are writing to offer an example about the critical importance of investments to expand dependable internet access generally and testify about the value of our partnership with Northfield WiFi specifically.

In 1990, we purchased a six-acre farm in Empire Township that was located just four miles west of Highway 52 and two miles east of Highway 3 in southern Dakota County. Farmington was already a fast-growing community surrounded by rural townships. The region was served by Frontier Telecommunications for telephone, and our area was entirely overhead with poles and wires. I was working as acting chief of staff for the Minnesota House of Representatives Republican Caucus and my husband commuted to Minnetonka for work as a medical device biocompatibility and regulatory affairs specialist. We were early adopters of new technologies in communications and computer-based work in our workplaces and at home, where we did our best to equip home with compatible tools to work effectively while we raised a young family with jobs that required round-the-clock access. It was an expensive, frustrated, necessary process as technology leapfrogged through fast changes from dial-up to DSL to broadband to fiber optic to satellite and cellular but our area was not earmarked for capital infrastructure investments.

In 1996 my husband established a consulting practice for medical device inventors and manufacturers based at our farm, which is also convenient to the Twin Cities Airport. In 1998 I was appointed by Gov. Jesse Ventura to serve as his director of policy management. Bill's business quickly became national and then international in clientele, and my job likewise came with expansive responsibilities for managing information. Frontier's service included internet by then, and we had four phone lines to handle the business line, fax line and internet. We also bought the farm next door, which doubled the problems we had with intermittent phone service and glacially slow internet. Our farms were literally at the end of the copper wire on a stub of the line that ran 2/10th of a mile from the nearest road along our long driveway. Our parents, born during the Great Depression, laughingly told us our circumstances reminded them of years when Rural Telephone provided party line service. We weren't laughing. Interruptions were frequent in both phone and internet, but never in the steep prices we were paying.

Our efforts to work with the fast-growing, consolidating Frontier company failed at every turn. Customer Service moved from the local Burnsville, MN office to somewhere in Texas, and along with that any ability to report and address interruptions of phone or internet service. Ultimately, we were among the hundreds of Minnesotans who had no choice but to file complaints with the State of Minnesota to advocate on our behalf. Professionally I knew this was an exercise with no hope of a solution. We had download speeds of 1.2 on our best day, just two miles away from neighborhoods that had no better than 10-14. It took trips to McDonalds in Farmington to buy coffee with a laptop to get work done even as late as 2016.

I researched options for a decade as we regularly weighed the fixed costs of renting office space against our preference for investing in a high-tech "tele-cottage." By seven years ago the medical device industry was operating entirely by digital transmission of massive documents worldwide, ending the era when it was necessary to ship boxes of paper submissions to the FDA. Business travel was dropping with every year. Smartphone technology,

streaming services and teleconference services were the substitute, but all of those demands for data further stressed our situation. I taught at the University of Minnesota Humphrey School
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from 2006 to last year and watched the evolution of academia from in-person to online during those years. Our adult children were in college starting in 2009 and were startled to come home and face the “stone age” of technology that limited online participation with coursework, online testing, and other communications. It was more than a nuisance to have family members and visitors coordinate who needed to be online at any given time.

Then we saw a sign for Northfield WiFi in the yard of a rural neighbor who pointed out that he was hosting a microwave dish on his silo. With one phone call to the office, I learned about an entrepreneurial approach that was filling in the very geography that big telecom companies were ignoring. The owner, Nathaniel Lyon, and the technical team analyzed the best line-of-sight from our neighbors to our property. We needed more height to accomplish the connection over mature trees between us. The solution was for us to voluntarily buy a TV tower and enter a long-term partnership with Northfield WiFi to service not just us, but also other eager neighbors. We invested \$9,000 in a two-year-old tower from a reputable dealer and erected it with concrete footings and new electrical service trenched 330' into a pasture. Overnight we benefited from blazing fast internet speed to both homes, our solar array and the barns where monitoring cameras could finally be installed.

The real benefits came with the global pandemic of March 2020. If our neighborhood of people weren't grateful before, all of us who switched to Northfield WiFi certainly were then. People could work from home and their kids could go to school. Our youngest daughter was relocated to the farm guest house unexpectedly mid-way through the second year at Vermont Law School. The pivot to digital education meant all-day, everyday streaming via Zoom and secured educational streaming services. Advanced Moot Court was conducted online as was the highly controlled access to Minnesota Bar prep summer 2021. The dependable streaming ability allowed Lauren to excel in her academics, in virtual student leadership activities in the evening, and in a legal fellowship with the United States Senate that was largely virtual from the farm. That evolved into a job, partly because she was able work very effectively and participate in online meetings when the entire Senate staff was working remotely. Bill's Mycroft Medical, LLC business was unaffected by internet impacts of at-home law school. We consider it a blessing that the Northfield WiFi upgrade allowed us to invest in a much bigger home office designed for teleconferencing in 2020 rather than commit to rental of expensive commercial space just for internet access. Our medical device practice flourished because the access to internet had become the norm for international work, and all our business systems had been upgraded to take full advantage of it. Life went on as before for us, professionally. We can measure the benefits in revenue and quality of life.

Why are we continuing to advocate for more access when it's no longer “our” issue? Because there are real consequences when teams of people do not have dependable internet. In December 2020 I was part of a 501c3 nonprofit board team writing a large Sustainable Agriculture Demonstration Grant. Six of us were independently uploading documents into the Foundant system that is used by the State of Minnesota. Three of us had no trouble. The other three live in rural areas near Welch, Mabel and Bricelyn, MN. There were dramatic differences in connectivity and upload speed among the team members, variable by the time of day across the five-day period when the grant elements were being reviewed, approved and submitted. Our treasurer in Mabel, MN was actively online for hours the last day of submission. The failure of our financials to upload before the hard deadline of 4 p.m. denied us a chance to access funding that will not be available again. The weakest internet link in our chain was our undoing, and that caught us all off-guard more than words can express. I've since collected every story I

can about inequities of internet access and how that translates into calculable impacts on individuals, families, private and nonprofit organizations, and even public sector agencies.

In summary, our international regulatory business and our farm-based agritourism business can't wait for the day when State and private priorities for capital investments addressed serious deficiencies in internet access, even so close to fast growing communities within the Metropolitan Urban Service Area. Ours is a success story of private investment with a private, entrepreneurial company that is leapfrogging past all the competing demands and excuses and delays. We are very proud of what we accomplished for ourselves and the neighbors within a sightline of our tower. It's a model of what can happen to build a resilient, well-managed network that can be fixed by real people in close communication with one another.

If there are questions, or if there is interest in a virtual or in-person tour of our farm-based collaboration with Northfield WiFi, please contact me at 651-246-6332 at your convenience.

Respectfully,

(Submitted electronically)

Wendy W. Wustenberg

William Wustenberg, DVM